EXHIBIT B

Third Eye Forensic Consultancy, LLC

Rockefeller F. Cooper, M.D., Msc, MsP (FS-FDI)
John C. Hiserodt, M.D., Ph.D., FCAP

FINAL AUTOPSY REPORT

CASE: RC-22-009

Name:	**ALVIS RAY SHREWSBURY**
Sex:	Male
Race:	Caucasian
Age:	45 years
Date of Birth:	[redacted]
Date of Death:	09/17/2022
Date of Autopsy:	10/01/2022
Place of Autopsy:	Stafford Family Funeral Home, 143 Clear Fork Rd., Lynco, WV 24857

FINAL ANATOMIC DIAGNOSES:

Second opinion autopsy with the following findings:

- Hypertensive and atherosclerotic cardiovascular disease.
  - Cardiomegaly (remaining heart weight = 416 grams) with concentric left ventricular hypertrophy.
    - Left ventricular free wall thickness = 1.9 cm
  - Atherosclerosis, coronary arteries, with up to 60% luminal occlusion of the left anterior descending coronary artery (proximal).
  - Anomalous right coronary ostium (and thus the entire right coronary artery) is congenitally narrow, measuring only 1.5 mm in diameter (normal = 3.5 – 4.0 mm in diameter).
  - Myocardium reveals significant lacey myocardial fibrosis, consistent with chronic ischemic heart disease, microscopic.

- Chronic obstructive pulmonary disease (COPD/emphysema), bilateral upper lobes only.

- Blunt force trauma to the head and right arm.
  - Peri-orbital ecchymosis, left eye
  - Contusion, right mid forearm.

John C. Hiserodt, M.D., Ph.D., FCAP
Forensic and Surgical Pathologist
Electronic signature on file

Rockefeller F. Cooper II, M.D.
Forensic Medicolegal Consultant
Death Investigation Specialist

Death Summary: Mr. Shrewsbury died as a result of complications of hypertensive and atherosclerotic cardiovascular disease. In this regard, the heart was enlarged (cardiomegaly), the left ventricular free wall was thickened (concentric hypertrophy) and there was significant, calcified atherosclerotic occlusion of the left coronary artery. The right coronary ostium was anomalous and congenitally narrow. Anomalous coronary artery syndrome is a well-known risk factor for sudden unexpected death in the forensic literature. No fatal blunt force injuries were identified at autopsy and no evidence of fatal internal bleeding was present. The immediate cause of death was an acute myocardial infarct (heart attack) due to the above conditions.

EXTERNAL EXAMINATION:

The body is that of a well-developed, well-nourished, Caucasian male appearing to be the stated age of 45 years. The body is identified by ankle tags. The body has been partially autopsied (heart only) by the local Coroner's office (case # 2206566) and the standard Y-shaped thoracic incision (not sutured closed) is present. The height is approximately 60 inches (152 cm) and the weight is approximately 170 pounds. The body is embalmed and there are no signs of decomposition. The body is cool to the touch. Pale, purple, fixed livor mortis is present posteriorly, except in areas exposed to pressure, where it is absent.

The head/face are normocephalic and exhibit no traumatic injuries. The head hair is brown and of relative short length. A brown mustache is present. The eye color appears brown with postmortem clouding of the corneae. The sclerae and conjunctivae are not congested. No petechial hemorrhages are seen. The gums are edentulous. The oral cavity and tongue are free of trauma. The lips are unremarkable and show no evidence of trauma.

The neck is symmetrical and exhibits no evidence of trauma or swelling.

The shoulders are symmetrical and exhibit no trauma.

The chest and abdomen are free of trauma. The chest has a normal A-P diameter. The abdomen is flat. A fluid wave is absent. No abdominal masses can be palpated.

The back is symmetrical and free of traumatic injuries.

The external genitalia are that of a normal adult male. The penis is circumcised and both testes are present in the scrotal sac. There is no evidence of trauma. The anus is unremarkable. There is no evidence of trauma.

The extremities are symmetrical and show evidence of traumatic injuries, listed below. Changes of senile purpura are present on the posterior surfaces of the left and right forearms.

The fingernails are clean and short. The fingertips are cyanotic. The toenails are clean and short. The skin of the lower legs shows geographic areas of brown discoloration, small scars and dystrophic changes consistent with stasis dermatitis. No pitting edema is present in the lower legs or ankles.

Evidence of recent trauma:

- A 6 x 3 cm faint contusion (bruise) is present on the right anterior mid forearm area.
- Peri-orbital ecchymoses are present around the left eye.

Evidence of recent medical/surgical treatment/organ procurement:

- Evidence of embalming: Bilateral incisions (each measuring 9 cm and sutured closed) area present in the left and right inguinal areas.

Other identifying features:

- Tattoos are present on the left anterior forearm, lateral left and right arms and upper back.

INTERNAL EXAMINATION:

BODY CAVITIES:

The body is opened through the previous Y-shaped incision. The thoracic panniculus is 0.9 cm thick and the abdominal panniculus is 1.3 cm thick. The muscles of the chest and abdominal wall are normal in color and consistency. The ribs and sternum are free of fractures of other pathology. The pleural cavities are smooth and glistening. The abdominal and pelvic cavities are also smooth and glistening. No blood is present.

NECK STRUCTURES:

The soft tissues of the anterior neck, thyroid, and cricoid cartilage, larynx and hyoid bone show no hemorrhage or traumatic injury. The larynx is patent and free of foreign material. The epiglottis and vocal cords are free of swelling and traumatic injuries and are otherwise unremarkable. The lower trachea and main bronchial bifurcations are free of congestion, mucus deposits, aspirated gastric contents or foreign material. No blood is present.

CARDIOVASCULAR SYSTEM:

The the remaining heart tissue weighs 416 grams. The heart is moderately enlarged and globular. The epicardium is smooth and glistening with the usual amount of fat. Multiple sections through the coronary arteries at 0.2 cm intervals reveal focal areas of atherosclerotic deposits with up to 60% luminal occlusion of the left anterior descending coronary artery (proximal portion) and up to 40% occlusion of the left circumflex artery. The right coronary artery is anomalous and congenitally narrow, measuring only 1.5 mm in diameter. This is due to a congenitally narrow right coronary ostium (opening of the artery from the aorta – see below for details). There is no hemorrhage or acute thrombosis throughout the coronary artery system.

On examining the heart itself, the endocardium is smooth and glistening and shows no mural thrombi fibrosis or calcification. The valve leaflets are smooth and glistening and free of vegetations, fibrosis or prolapse. The valve measurements are as follows: tricuspid valve: 12.0 cm; pulmonic valve: 8.0 cm; mitral valve: 10.0 cm; aortic valve: 7.5 cm.

The trabeculae carne and papillary muscles are moderately hypertrophied. The chordae tendinae are separate and normal. The right ventricle is 0.4 cm in maximal thickness and the left ventricle is 1.9 cm in maximal thickness. The interventricular septum is 1.8 cm in maximal thickness. There is evidence of concentric left ventricular hypertrophy. The coronary ostia are appropriately positioned and the left ostium measures 3.5 mm in diameter. The right ostium is congenitally narrow and bifid. On opening is rudimentary and blind. The other opening is significantly narrow, measuring only approximately 1.5 mm in diameter (and thus the entire right coronary artery is congenitally narrow).

The myocardium is generally pale tan/brown throughout and is free of grossly visible scars. The aorta shows generalized fatty streaking and mild (1+) atherosclerotic deposits throughout its course. This is associated with patchy, mild calcification of the wall. All major bifurcations are patent. There are no aneurysms or mural thrombi. The vena cava system is grossly unremarkable. No mural thrombi are identified.

RESPIRATORY SYSTEM:

The right lung weighs 7564 grams and the left lung weighs 500 grams. The pleural surfaces are smooth and glistening with scattered anthracotic deposits. Both lungs reveal congestion with posterior hypostasis. On sectioning, lung parenchyma in the upper lobes easily collapses and compresses due to loss of support structure (emphysematous changes). Lung tissue in the lower lobes is generally rubbery to firm finger pressure and will not fracture with firm finger pressure. No areas of acute pneumonia are appreciated. No granuloma, infarcts, fibrosis or tumors are present.

The extra- and intra-pulmonary bronchi are smooth and glistening and are free of congestion, exudates or mucus plugs. There is no foreign material or visible evidence of acute gastric aspiration. The pulmonary arteries are free of fatty streaks. No thromboemboli are present. Hilar lymph nodes are not enlarged.

HEPATOBILIARY SYSTEM:

The liver weighs 1930 grams. The capsule is smooth and glistening and the borders are relatively sharp. Cut sections show a pale tan, mildly congested parenchyma with a normal lobular pattern. No focal or diffuse lesions are noted. No cysts or nodules are present. There is no fibrosis.

A gallbladder is present. The serosa is smooth and glistening and the wall is thin and pliable. On opening, the lumen contains approximately 10 cc of thick, dark green bile. No gallstones are present. The mucosa is velvety green and is free of focal or diffuse lesions. There is no evidence of malignancy.

HEMATOLYMPHATIC SYSTEM:

The spleen weighs 116 grams. The capsule is smooth and glistening. The parenchyma is dark red and firm with passive congestion. No granulomas, infarcts or tumor masses are seen. Lymph nodes throughout the body are not enlarged and are otherwise unremarkable.

GASTROINTESTINAL SYSTEM:

The esophagus is grossly unremarkable throughout its course. The gastro-esophageal junction is free of congestion, ectatic vessels or linear tears. The stomach contains approximately 20 cc of brown bilious fluid. No food is present and no pills or capsules are present. The rugal folds are flattened and the gastric mucosa is otherwise grossly unremarkable. No ulcers, polyps or tumors are present. No blood is present.

The remainder of the gastrointestinal system is essentially unremarkable. The serosa of the small and large intestines is smooth and glistening. On opening, the small and large intestines are free of tumors, polyps or inflammatory changes. No blood or tumor masses are identified.

UROGENITAL SYSTEM:

The right kidney weighs 167 grams and the left kidney weighs 126 grams. The capsules strip with relative resistance revealing a finely granular pale tan cortical surface. No cysts or deep geographic scars are present. Cut sections show a well demarcated cortico-medullary junction with a thin, 5-6 mm cortical ribbon. The renal pelvis contains the usual amount of fat. The calyces and pyramids are grossly unremarkable. No calculi are present. The renal arteries are reveal mild (1+) atherosclerotic deposits in the sections examined. The renal veins are unremarkable. The ureters are not dilated and are probe patent into the bladder trigone area.

The urinary bladder is of normal size and shape. It contains no urine. The bladder mucosa exhibits the usual, white trabecular pattern and is free of hemorrhage. The muscular wall is thin and pliable. The trigone area is probe patent and is, otherwise, grossly unremarkable.

The prostate gland is modestly enlarged. On sectioning, the parenchyma is smooth and glistening with a few small central nodules. No infarcts, hemorrhage or malignancy is present in the sections examined

ENDOCRINE SYSTEM:

The thyroid gland has the normal size and shape. It shows the typical dark brown color and beefy texture throughout. No cysts or nodules are present. There is no fibrosis. The pancreas is of normal size, shape and texture and shows the typical autolytic changes. Both adrenal glands are grossly unremarkable. No hemorrhage is present.

MUSCULOSKELETAL SYSTEM:

There are no bony deformities. The muscles are well developed and of the usual color and consistency. The sternum, ribs and spine exhibit reduced bone density and marrow.

CENTRAL NERVOUS SYSTEM:

The scalp is reflected, revealing evidence of trauma. The calvarium is not fractured. The brain is relatively well preserved. It is removed in its entirety. The brain weighs 1235 grams. On external examination, the brain is free of congestion. The sulci and gyri show normal relationships. No subdural, epidural or subarachnoid hemorrhage is present. On sectioning, normal anatomy and normal landmarks are identified. There are no cortical contusions or acute infarcts (strokes). The ventricular system is patent and non-compressed. The cerebellum shows normal anatomy. The tonsils are not swollen or necrotic. The midbrain, pons and medulla are grossly unremarkable. There is no evidence of intra-parenchymal hemorrhage. The vessels at the base of the brain are free of atherosclerotic deposits in the sections examined. No aneurysms are identified. The pituitary gland is of normal size and is grossly unremarkable.

SPECIAL STUDIES:

- Numerous photographs are taken.
- Representative tissue sections are preserved in neutral buffered Formalin

MICROSCOPIC EXAMINATION:

Multiple sections are taken from representative organs and stained with H/E. The results of microscopic evaluation are consistent with the gross and final anatomic diagnoses.

Heart: Sections reveal a pattern of lacey myocardial fibrosis, consistent with chronic ischemic heart disease. No acute infarcts are seen in the sections examined. Sections of coronary arteries reveal high grade, calcified atherosclerotic deposits in both the left anterior descending and left circumflex arteries.

Lungs: Sections reveal congestion and mild edema with pan-acinar emphysematous changes noted in upper lobe tissue. Lower lobe tissue reveals mostly atelectasis. No areas of acute pneumonia are present. No granuloma, infarcts, fibrosis or tumors are present in the sections examined.

Liver: Sections reveal normal lobular architecture. There is no significant portal inflammation or hepatic fibrosis.

Kidney: Sections reveal mild arteriolar-nephrosclerosis.

Thyroid gland: No significant histologic abnormalities. Abundant colloid stores are present.

Brain (random cortex and cerebellum): No significant histologic abnormalities in the sections examined.